

## **Historic, archived document**

Do not assume content reflects current scientific knowledge, policies, or practices.



1.942  
A 2.54621

United States Department of Agriculture  
Agricultural Research Administration  
Bureau of Animal Industry

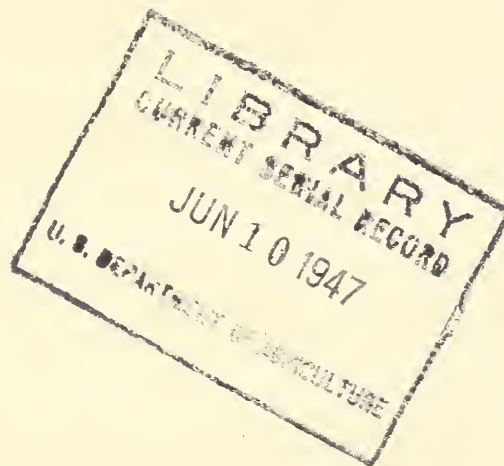
SUMMARY OF DEVELOPMENTS

in the

MEXICAN OUTBREAK OF FOOT-AND-MOUTH DISEASE,

With Supplementary Information  
on United States Cooperation  
in Control Measures

Prepared January 28, 1947



Note: This report has been prepared on the basis of best available information but is subject to revision and amplification as new facts are obtained. Supplemental reports will be issued as significant developments occur.

Statement of General Policy and Authority

Policy: As established policy of the U. S. Department of Agriculture is to exclude the foreign livestock plague, foot-and-mouth disease, from the United States by rigid quarantine and, in cooperation with States, to suppress, by prompt slaughter of affected and exposed animals and other effective means, any outbreaks that may occur in this country. This policy has a scientific basis and is not prompted by motives of economic competition. It is the Department's policy also to cooperate, within the limits of its authority, with officials of foreign countries in controlling any outbreaks that may occur within their jurisdictions.

It is the Department's further policy to make prompt public announcement of significant developments relating to foot-and-mouth disease of concern to citizens of the United States.

Authority: Under present Federal statutes, the Department has authority to cooperate both formally and informally with States and informally with foreign Governments in suppressing outbreaks of this disease. Informal cooperation with foreign governments includes the furnishing of information and a limited amount of technical assistance by trained personnel. But the present authority does not extend to engaging in eradication programs on a substantial scale, even when requested to do so by foreign officials.

Highlights of the Situation

(See later text for background information)

The outbreak which first occurred in the State of Veracruz in east-central Mexico has spread, since late in 1946 to nine Mexican States and the Federal District--for the most part in a westerly direction.

The area containing the affected herds is under quarantine maintained by Mexican authorities with the aid of troops. About 2 million head of cattle are estimated to be in the quarantined area and about 9 million in other parts of Mexico.

At the invitation of the Mexican authorities the United States has 5 veterinarians, all experienced in foot-and-mouth disease control, on the scene of the outbreak, to render technical assistance. Another is organizing the border defenses.

Department officials have made strong representation, through official channels, urging the prompt completion of a substantial fence along the entire United States-Mexican border. Such a fence, of which only segments thus far exist, is needed to help maintain an effective border quarantine.

Since the outbreak in Mexico no cases of foot-and-mouth disease have appeared in the United States, nor have any appeared in the northern States of Mexico. The nearest affected herd is about 350 miles from the border.

One area of potential danger is in the vicinity of Matamoros, Mexico, near the Texas border close to the Gulf Coast, approximately opposite Brownville, Texas. At least 50 zebu bulls obtained from Brazil in 1946 are on several ranches in that area, but none have yet shown signs of infection.

The Department has recommended that no stock shows, fairs, or expositions be held near the border, also that persons who have been accustomed to cross the border for hunting, especially with dogs, refrain from doing so during the emergency.

Further veterinary inspection of cattle that entered the United States when imports were permitted is being continued. But the rate of inspection is impaired somewhat by a shortage of veterinarians, traceable to war conditions and economic causes.

So far as determined, comparatively few of the affected cattle in Mexico have been slaughtered as a means of control and eradication.

Officials of the U. S. Bureau of Animal Industry, though lacking authority to engage in active disease-eradication work in Mexico, such as the enforcement of quarantines and slaughter and disposal of affected animals are prepared to take such action immediately if cases of foot-and-mouth disease should appear in the United States.

The Bureau has already selected, for the purpose, qualified key veterinarians and instructed them to be ready for immediate assignment. Much of the equipment is already available.

#### Events Leading up to the Outbreak

In a treaty entitled, "Safeguarding Livestock Interests Through the Prevention of Infectious and Contagious Diseases," between the United States and Mexico proclaimed January 1930, the two countries undertook not to permit the importation of ruminants or swine from countries where foot-and-mouth disease or rinderpest exists.

Beginning in October 1945, the Mexican Government permitted the entry of two consignments of zebu cattle from Brazil, where foot-and-mouth disease is known to exist. The first consignment of approximately 130 head arrived in October 1945, and the second of 327 in May 1946. Both shipments were landed on Sacrificios Island adjacent to Veracruz and later brought to the mainland, the first in December 1945 and the second in September 1946.

The U. S. Department of Agriculture with the cooperation of the Department of State, protested strongly against the importations from Brazil, taking the position that they were in violation of the treaty and endangered the livestock industries of the two countries. The first of these protests was



in October prior to the landing on Sacrificios Island of the first shipment of zebu bulls from Brazil. A strong protest was again made late in March 1946 when information was first received that a second shipment was being assembled in Brazil for consignment to Mexico. As the protests were unavailing, it became necessary to consider measures to prevent, as far as possible, transmission of any infection into the United States. Accordingly, the Secretary of Agriculture on May 28 approved an amendment effective June 5 to the Department regulation governing the inspection and quarantine of livestock imported from Mexico which placed severe restrictions on the entry of ruminants and swine from that country.

At a meeting of the Mexican-United States Agricultural Commission held in Los Angeles the week of July 22, 1946, the Mexican officials announced a decision to remove the second shipment of animals from Sacrificios Island out of Mexico. On the basis of that decision, resolutions were adopted by the Commission regarding future procedures. (See appendix). These were approved by the Secretary of Agriculture of the United States, and the Department proceeded with measures to carry them out.

This Department assigned two veterinarians to participate with two Mexican veterinarians in a joint survey of disease conditions in Mexico as provided in the Los Angeles resolution and they proceeded to Mexico City September 1, 1946.

It developed that the highest authority in Mexico did not approve the decision announced by the Mexican representatives at Los Angeles to re-export the Brazilian cattle on Sacrificios Island. Instead the Mexican authorities decided to transfer the animals to a ranch in the State of Veracruz not far from the port. This was accomplished September 28. In the meantime, beginning about September 10, the joint veterinary group has proceeded with its inspection on the ranches and in the districts where the animals included in the importation of October 1945 were located. The survey was completed about October 14, 1946. No evidence of the existence of foot-and-mouth disease was found, and the special restrictions, which involved quarantine at the United States border, were revoked, effective October 18, thus permitting the importation of livestock from Mexico under the same requirements that had been in effect prior to the restrictions effective June 5. No cattle, or other ruminants or swine were permitted to enter the United States from Mexico while the restrictions were in effect.

The Mexican Government then issued a decree, effective October 25, 1946, which provides as follows:

Exportation of the zebu bulls of Brazilian origin which were recently brought onto the mainland from Sacrificios Island is prohibited for one year beginning October 25, 1946. The exportation of any of those animals after October 24, 1947 can be made only upon permits granted by the Minister of Agriculture. Before such permits are issued the animals must be identified and inspected and export certificates issued.

As a further precautionary measure the decree requires the registration of these animals by the Minister of Agriculture showing the names of owners and locations. Owners must report sickness or death among the animals and the Ministry of Agriculture veterinarians must make periodic inspections. Heavy fines are prescribed for failure on the part of owners, customs brokers, or individuals to comply with provisions of the decree and federal officials may be dismissed if they fail to carry out its terms.

The first report of a vesicular disease in Mexican livestock was received by the U. S. Department of Agriculture December 18, 1946. Immediately on invitation of Mexican authorities the Bureau of Animal Industry sent two experienced veterinarians, Dr. M.S. Shahan and Dr. A. E. Wardlow, to Mexico to participate in the steps being taken to arrive at a diagnosis. Foot-and-mouth disease is one of several vesicular diseases having somewhat similar symptoms.

Animal inoculation tests, requiring several days, are necessary for positive diagnosis. These were made by the Mexican authorities and the Bureau's representatives. The diagnosis of foot-and-mouth disease was confirmed by Dr. Shahan, who is the Bureau's specialist on virus diseases, and who also participated in the field work that suppressed the outbreak of that disease in southern California, in 1929. Dr. Wardlow and the Mexican veterinarians concurred in the diagnosis.

#### Protective Measures Taken

On learning, by telephone, December 26, that the malady had been definitely diagnosed as foot-and-mouth disease, Bureau officials in Washington dispatched instructions immediately to inspectors in charge at border stations to withhold inspections of all ruminants and swine offered for importation, which had the effect of stopping their entry. A formal order prohibiting such importations was issued in accordance with the governing statute and was signed by the Secretary effective January 3, 1947, the day it appeared in the Federal Register.

From December 31 to January 3, representatives of the Bureau of Animal Industry and the Office of Foreign Agricultural Relations, meeting in Washington, D.C., discussed problems of control and eradication of the outbreak with two Mexican officials. These were Under Secretary of Agriculture for Livestock, Oscar Flores and Dr. Fernando Camargo, in charge of livestock sanitary laboratory control work. They were accompanied by Mr. Don Stoops a United States assistant agricultural attache.

It was arranged that the Bureau of Animal Industry would detail four veterinarians to Mexico to join a like number representing that Government to make an intensive survey with a view to determining as nearly as possible the extent, spread, and the various conditions and circumstances that would influence control and eradication measures. The United States veterinarians assigned to duty in Mexico were Dr. M. S. Shahan of the Bureau's Pathological Division, Washington, D.C.;



Dr. A. E. Wardlow, Sacramento, Calif.; Dr. H. F. Kern, Laredo, Texas, and Dr. Cesar Clavell, San Juan, Puerto Rico. The First two had participated in the diagnosis of the disease.

According to the history of events as reported to Bureau officials, the disease first appeared near Veracruz in the State of Veracruz about November 1, 1946, on the ranch where the second importation of the Brazilian bulls had been placed. The disease soon appeared in the adjoining States of Puebla, Hidalgo, Mexico, Tlaxcala, and the Federal District. By the latter part of January the infection appeared also in the States of Oaxaca, Guerrero, Morelos, and Aguascalientes. The Mexican Government took measures to establish a quarantine line around the area mentioned, including the use of troops, in an effort to prevent a further spread of the disease. As an additional precaution, the control officials designated a second quarantine zone around the affected area. It is the stated purpose of the Mexican authorities to eliminate, by the slaughter method, any sporadic cases of the disease that appear outside the quarantine line.

In the meantime a number of bulls from the ~~second~~ importation had been moved to ranches in Mexico, near the Texas border close to Matamoros. At the time the Mexican officials were in Washington, December 31 to January 3, this was a subject of discussion and Bureau officials were assured that the animals would be removed to south-central Mexico, but events have not disclosed whether this has been accomplished.

The appearance of the disease in Mexico carries unusual significance both because of the large importations of cattle which the United States normally receives from Mexico and because of the long common boundary of the two countries. During the period from October 18 to December 27 when importations of livestock across the border were permitted, approximately 151,800 cattle entered the United States.

In addition to the four veterinarians previously mentioned, who went to the area of the outbreak, the Department later sent Dr. T. W. Cole, who is especially experienced in livestock quarantine problems to Brownsville, Texas. He is superintendent of the Department's Animal Quarantine Station at Athenia, N. J., which serves the port of New York and adjacent areas. Dr. Cole will inspect and study conditions along the extensive U. S.-Mexican border. As a further protective procedure the Bureau of Animal Industry has obtained the cooperation of customs officials and those of the Public Health Service and the Bureau of Entomology and Plant Quarantine. All these Federal agencies have inspectors on the border for various purposes. Their inspectors are in a position to help in maintaining the present restrictions against the admission of livestock and specified products.

#### Need for Fence Along Border

The United States-Mexican boundary is delineated for a distance of 1,210 miles by the Rio Grande River, for 20 miles by the Colorado River, and 675 miles by the overland boundary between El Paso, Texas and the Pacific



Ocean. The total of these distances is 1,905 miles. On this international boundary the usual points of entry for livestock include Brownsville, Laredo, Eagle Pass, Del Rio, and El Paso, Texas; Douglas and Nogales, Arizona; and Calexico, Calif. There has long been need for a substantial fence along the boundary but thus far only segments have been constructed. Structures such as fencing, boundary markers, and facilities for flood control within the jurisdiction of an international boundary commission. Fencing has been desirable for the exclusion, from the United States, of cattle infested with fever ticks. The danger from foot-and-mouth disease is even greater. The Department has again repeated its request, through official channels, that a suitable fence be erected as an aid in maintaining an effective livestock quarantine.

#### Additional Services and Problems

To discuss with Mexican officials the problems created by the outbreak, Dr. S. O. Fladness, assistant chief of the U. S. Bureau of Animal Industry, proceeded to Mexico January 22, 1947. Dr. Fladness had previously been stationed in Mexico for 2½ years and as a consequence is familiar with the livestock industry of that country, its customs, and methods of dealing with animal diseases in the past. Because of its extreme contagiousness, foot-and-mouth necessitates a very tight and rigidly enforced quarantine if its spread is to be prevented. If it should become established in the northern part of Mexico near the United States boundary, the danger that some infection would now and again be conveyed across the border would never end. A land boundary is a very poor barrier to such an infectious disease, according to both scientific evidence and practical experience. The need to restrict the present outbreak to the smallest possible area is, therefore, apparent since a small area can be more closely guarded than a large one.

Meanwhile the Bureau of Animal Industry is investigating the condition of cattle that entered the United States from Mexico during the time that importations were permitted. Special consideration is being given to those received from October 18, 1946 when the border was reopened to December 27, when it was closed. Lists of all shipments of Mexican cattle imported during that period have been furnished Bureau offices in all the States of destination with instructions that appropriate investigations be made as quickly as possible, and close supervision maintained over the herds and districts involved.

Prior to June 5, 1946, when the first quarantine of the year was established 18 Brazilian bulls entered the United States by way of Mexico. These were destined to and remain in Texas. Their condition is being closely watched. To the date of this report no cases of the disease have appeared either in northern Mexico or in the United States. There have been some reports of suspicious symptoms but none of these cases have proved to be foot-and-mouth disease.

The action taken by the Department of Agriculture in imposing the present restrictions against importations from Mexico was made necessary by existing

United States statutes. The order, which is an amendment to B.A.I. Order 373, added Mexico to the list of countries where foot-and-mouth disease had been determined to exist. Besides excluding live animals, the order prohibits also the importation into the United States of the fresh meat of domestic and wild ruminants or swine, and other specified products.

The Bureau of Animal Industry has definite plans for the quick mobilization of its manpower for eradication purposes, should the disease gain entrance into the United States. These forces will be fully equipped with all necessary supplies and material required for the prompt appraisal, slaughter and disposal of affected animals. Past experience has shown that such prompt action in cooperation with States, is necessary to prevent the disease from getting more than a temporary foothold.

An incident which shows the far-reaching efforts of quarantine regulations on commerce and human affairs occurred when the Belgian Economic Mission inquired of the Bureau of Animal Industry whether it could continue to bring in fresh meat from Mexico, in bond, for re-export to Europe from a United States port. Since the restrictions prohibit the entry of all fresh meat, such movement could not be permitted.

A question that frequently arises is the possible effect of foot-and-mouth disease on man. This disease has serious effects on cattle, sheep, goats, swine, and certain other animals but seldom affects human beings and then only slightly. The gravity of the outbreak of the disease in Mexico is occasioned by the vast expanse of the livestock-producing areas in North America, together with the complexities of marketing. Foot-and-mouth disease is one of the most contagious known to science.

There is appended a list of references which contain factual information concerning foot-and-mouth disease, measures for its control, the extent of the Department's authority to slaughter livestock and pay indemnity in eradication campaigns, and the general effects of the disease, including the economic losses it causes.

#### Selected References with Notes Concerning Contents

- Farmer's Bulletin No. 666, Foot-and-Mouth Disease, 14 pages -- a general account of characteristics, losses, occurrence in other countries, outbreaks in United States, symptoms, diagnosis, **prevention** and eradication. Illustrated.
- Yearbook Separate No. 1882, Foot-and-Mouth Disease, reprint from Yearbook of Agriculture, 1942, 11 pages -- somewhat more technical than the Farmers' Bulletin, gives more details on diagnosis and nature of vesicular diseases, deals more fully with cooperation of livestock owners and public.
- Research Achievement Sheet 29, Protection Against Foot-and-Mouth Disease has Scientific Basis, 2 pages-- a very brief account of research work, conducted abroad by a U. S. Commission, showing the scientific facts on which control and eradication measures are based. Shows value of foresight and preparedness in dealing with disease.
- B. A. I. Order 368, Regulations Governing the Inspection and Quarantine of Livestock Imported From or Exported to Mexico, 6 pages -- formal regulations based on Article XIII of a convention between the United States and Mexico ratified by the two Governments in 1930.

- B. A. I. Order 373, Order to Prevent the Introduction into the United States of Rinder- and Foot-and-Mouth Disease, 3 pages -- formal regulations based on several Federal statutes, naming countries where the disease exists and prescribing measures to exclude the diseases from the United States.
- B. A. I. Order 376, Prevention of Animal Diseases: Cooperation with States, 4 pages -- part 53 deals with foot-and-mouth disease and other infectious maladies; describes authority and arrangements for purchase and disposal of diseased animals, indemnities, claims, and division of expenses with States.
- Motion Picture Film, Suppressing Foot-and-Mouth, a documentary portrayal of events in several previous outbreaks in the United States; produced in 1939 by the Department for general distribution, primarily educational.
- Motion Picture Film, Vesicular Diseases of Animals, -- in color, includes foot-and-mouth diseases; primarily for professional groups as aid to prompt and accurate diagnosis.

\*\*\*\*\*:\*\*\*\*\*

#### APPENDIX

Resolutions approved by the Mexican-United States Agricultural Commission at a meeting in Los Angeles, California the week of July 22.

- WHEREAS: The introduction of foot-and-mouth disease into either the United States of Mexico or the United States of America would cause great loss to the animal industries of the two countries,
- WHEREAS: The Government of Mexico has decided to arrange for the removal from Mexico of a shipment of Zebu bulls now on Sacrificios Island and originating in Brazil, a country in which foot-and-mouth disease is enzootic,
- WHEREAS: The Government of the United States has decided to establish on Swan Island, in the Caribbean Sea, an international animal quarantine station through which might pass animals originating in countries having foot-and-mouth disease or other destructive diseases of livestock not existent in the countries of North America and destined to the United States and Mexico.



THE MEXICAN-UNITED STATES AGRICULTURAL COMMISSION RECOMMENDS:

1. That veterinary experts of the two countries jointly investigate animal disease conditions in Mexico as they relate to recent importations into Mexico and into Sacrificios Island of cattle from a country in which foot-and-mouth disease exists;
2. That such an investigation shall commence not later than September 1, 1946;
3. That, provided such investigation produces negative findings as regards the existence of foot-and-mouth disease in Mexico, the United States Government should revoke Amendment 3 to B. A. I. ORDER 368, an  
"ORDER AMENDING REGULATIONS GOVERNING THE INSPECTION AND QUARANTINE OF LIVESTOCK IMPORTED FROM OR EXPORTED TO MEXICO:"
4. That, in the future, the Governments of the United States and of Mexico shall require that all cattle, other ruminants and swine, shall be entered through the international animal quarantine station to be established by the Government of the United States on Swan Island and such other place or places as may be mutually acceptable, when such cattle, other ruminants and swine come from countries or geographical regions in which the contagion of any such diseases has been determined to exist by either of the two Governments, with the privilege of confirmation by the other;



5. That the Governments of the United States and Mexico should arrange through appropriate diplomatic channels for such amendments or interpretations of the Livestock Sanitary Convention signed March 16, 1928 as may be necessary to implement Paragraph 4 of these Recommendations.

